

Next Steps for Addressing Delta Outflow Issues 1.15.09

1. Agree on a list and description of the full range of competing hypotheses regarding relationships and possible mechanisms between outflow and species abundance. Critically compare existing correlations and data to identify strengths and weaknesses of competing hypotheses for each relevant covered species. Compile information and summarize lessons learned from the existing scientific literature and analyses performed to date and determine if additional statistical or modeling analyses are needed. Identify a process for efficiently testing these hypotheses to aid in development of the Plan, and its implementation in interim, near term, and long-term.
2. Based on the information developed in step 1, modify existing scenarios or develop additional scenarios, carefully document what critical data gaps the additional analysis and modeling are intended to fill and carefully craft a minimum number of scenarios (no more than 2 to 5) that provide the missing information. Both CAL Lite and CALSIM models may be used. CALSIM modeling may focus on refining and balancing CALSIM allocation rules to define realistic operational rules for each scenario that attempt to balance outflow targets, exports, upstream deliveries, instream tributary conditions, and reservoir storage.
3. Consider how near-term and long-term BDCP flow and non-flow actions, as well as future changes associated with climate change and levee failure, might change the existing correlations and hypothesized underlying mechanisms between outflow (X2) and abundance of covered species and identify implications for determination of near and long-term outflow objectives.
4. Develop a plan that contains a set of specific flow-related conservation measures designed to achieve measurable biological objectives, backstopped by upper and lower boundaries for modifying flows linked to decision criteria, that together are flexible and robust enough, to adapt to new information and changing circumstances through the adaptive management process included in the Plan.
5. Seek independent scientific advice as necessary to help understand the existing literature and data; competing hypotheses; underlying mechanisms; and ecological effects of different scenarios, and to evaluate the resulting proposed flow-related conservation measures using the DRERIP models and other tools.